

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027083**Date Inspected:** 20-Jan-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** As noted below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

13E/14E/E1/E2 (Exterior)

This QA Inspector randomly observed ABF welder Xiao Jian Wan performing the back-gouge operation of four (4) ultrasonic rejectable indications on "E1/E2" of 12E/13E located at "Y" 630 mm: (30 mm wide; 180 mm length; and 8 mm in depth), "Y" 260 mm: (25 mm wide; 150 mm length; and 10 mm in depth), "Y" 480 mm: (23 mm wide; 120 mm length; and 15 mm in depth), "Y" 1200 mm: (25 mm wide; 195 mm length; and 9 mm in depth). This QA Inspector observed QC Inspector Fred Von Hoff perform a Magnetic Particle Inspection (MT) of the excavation to determine the soundness of the metal. Upon completion of the testing this QA Inspector verified that no rejectable indications were present.

This QA Inspector randomly observed ABF welder Xiao Jian Wan (Welder ID 9677) performing the repair welding operation of ultrasonic rejectable indications as per the SMAW process in the (4G) overhead position on "E1/E2" of 12E/13E on the exterior of the OBG. This QA Inspector observed the use of E7018-H4R electrodes and QC Inspector Fred Von Hoff verify that the preheat temperature was at the minimum of 93 degrees C and that the welding parameters (Amps=135) were in accordance with WPS D1.5-1001- Repair. The welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications. This QA Inspector made subsequent observations and noted that the work is in progress.

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12E/13E/D2 Repair (Exterior)

This QA Inspector randomly observed ABF welder Wai Kit Lai (Welder ID 2953) performing the repair welding operation of an ultrasonic indication as per the SMAW process in the (4G) overhead position on “D2” of 12E/13E. The welder utilized E7018-H4R electrodes from a portable baking oven and applied heat on the site to a minimum of 93 degrees C. The QC Inspector was observed monitoring the welding and the parameters to satisfy both were in accordance with WPS D1.5–1001- Repair. The welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications. This QA Inspector made subsequent observations and noted that the work is in progress.

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10% of the welds listed below. These welds were previously accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. This QA observed no rejectable indications at the time of testing. This QA generated a TL-6027 UT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

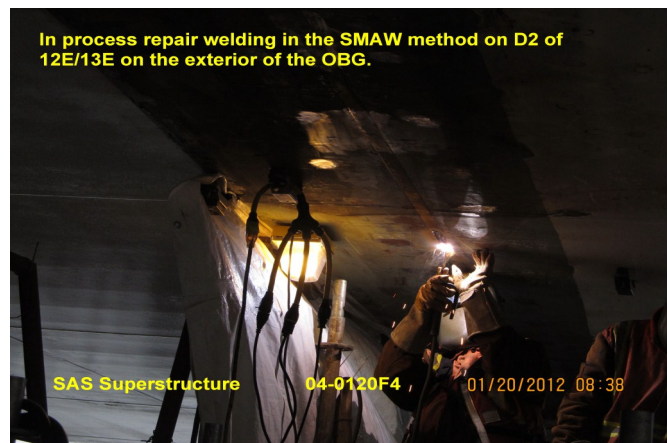
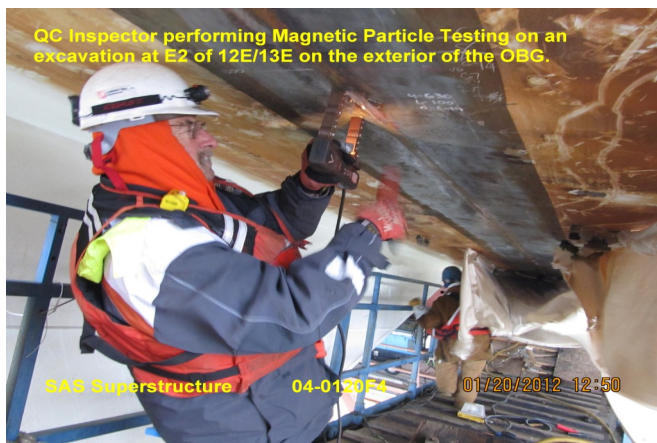
12E/13E/D3

This QA Inspector performed a Magnetic Particle (MT) Inspection of D3 at 12E/13E on the interior of the OBG. This QA Inspector performed the yoke method in conformance with ASTM E 709 and the standard of acceptance with D1.5 section 6.26. This QA Inspector noted that no rejectable indications were found at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work at this location appeared to be in general conformance with the contract specifications.

Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this report. The issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

Summary of Conversations:

The were no pertinent conversations to report.



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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
